

(54) Title of the invention : IOT BASED SMART FARMING FOR AUTOMATIC CROP MONITORING, IRRIGATION MANAGEMENT AND IRRIGATION OPTIMIZATION SYSTEM USING MACHINE LEARNING AND CLOUD TECHNOLOGY

<p>(51) International classification :G06Q0050020000, G06N0003040000, A01G0025160000, G06N0003080000, H04L0029080000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)<b>Name of Applicant :</b>  <b>1)Dr. Ramesh Pal</b>  Address of Applicant :Assistant Professor and Head, Agricultural Engineering, School of Agricultural Sciences &amp; Engineering, IFTM University, Lodhipur Rajput, Delhi Road, Moradabad-244 102 (U.P.) India -----  <b>2)Dr. Himanshu Trivedi</b>  <b>3)Dr. Virendra Singh</b>  <b>4)Dr. Satybhan Singh</b>  <b>5)Dr. Ravi Prakash Mishra</b>  <b>6)Dr. Yashpal Singh</b>  <b>Name of Applicant : NA</b>  <b>Address of Applicant : NA</b></p> <p>(72)<b>Name of Inventor :</b>  <b>1)Dr. Ramesh Pal</b>  Address of Applicant :Assistant Professor and Head, Agricultural Engineering, School of Agricultural Sciences &amp; Engineering, IFTM University, Lodhipur Rajput, Delhi Road, Moradabad-244 102 (U.P.) India -----  <b>2)Dr. Himanshu Trivedi</b>  Address of Applicant :Assistant Professor, School of Agricultural Sciences &amp; Engineering, IFTM University, Lodhipur Rajput, Delhi Road, Moradabad-244 102 (U.P.) India -----  <b>3)Dr. Virendra Singh</b>  Address of Applicant :Associate Professor and Director, School of Agricultural Sciences &amp; Engineering, IFTM University, Lodhipur Rajput, Delhi Road, Moradabad-244 102 (U.P.) India -----  <b>4)Dr. Satybhan Singh</b>  Address of Applicant :Assistant Professor (Agronomy), School of Agricultural Sciences &amp; Engineering, IFTM University, Lodhipur Rajput, Delhi Road, Moradabad-244 102 (U.P.) India -----  <b>5)Dr. Ravi Prakash Mishra</b>  Address of Applicant :Associate Professor and Head, School of Smart Agricultural Science, University of Engineering and Technology, Roorkee -----  <b>6)Dr. Yashpal Singh</b>  Address of Applicant :Assistant Professor (Agronomy), School of Agricultural Sciences &amp; Engineering, IFTM University, Lodhipur Rajput, Delhi Road, Moradabad-244 102 (U.P.) India -----</p>
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(57) Abstract :

Numerous issues have arisen as a result of the massive increase in the global population. The most critical is to ensure that there is sufficient food for everyone. Pests and diseases have a variety of negative effects on the economy. They slaughter livestock, reduce productivity, and discourage consumers from purchasing the goods they produce. Numerous crop diseases and pests can reduce yields by more than 50%, if not completely destroy the crop. Precision farming has evolved as a result of the Internet of Things (IoT) and image processing techniques for disease detection, among other advancements. Deep neural networks for plant disease detection are gaining popularity due to their ability to monitor a large field of crops and the symptoms that occur when a plant's leaves are infected with a disease.

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